



# Proposed Study: Externalizing Symptoms as a Risk for Unintentional Injuries in Children

Sally M. Askar

Advisor: Dr. Keri J. Brown Kirschman  
University Of Dayton Psychology Department

## INTRODUCTION

- Childhood unintentional injury is the leading cause of death in children under 18 years of age (Krug, Sharma, & Lozano, 2010).
- The CDC (2010) data shows that 33 children die everyday from injuries that could have been prevented.
- Unintentional injuries are not ‘accidents’ because of the preventable nature of the injury (Krug, Sharma, & Lozano, 2010).
- Many of these pediatric injuries occur in the home (WHO, 2006).
- Past research has shown that the presence of certain behavioral disorders may impact the risk of childhood injury (Pastor & Reuben, 2006).
- The psychiatric symptoms of these disorders comprise of externalizing symptoms such as aggression, hyperactivity, and oppositionality (American Psychiatric Association, 2013).
- The literature about the effects of externalizing problems on unintentional injury risk has been equivocal (Schwebel, Hodgens, & Sterling, 2006).

## Examples of Unintentional Injuries vs. Intentional Injuries

Unintentional Injuries	Intentional Injuries
• Burns	• Suicide
• Poisonings	• Stabbings
• Drowning	• Self-harm
• Accidental firearm discharges	• Assaults
• Suffocations	• Intentional Shootings
• Motor Vehicle Crashes	

## HYPOTHESIS

- Externalizing behaviors exhibited by children will relate to hazardous touches in a simulated home environment.
- Behaviors consistent with externalizing symptoms, such as hyperactivity, impulsivity, aggression, and non-compliance encourage risk-taking behaviors that lead to higher rates of injury.
- Children highest in externalizing problem behaviors will have higher rates of injury as reported in their injury history.
- Parent reports of externalizing problems will also be related to risk behaviors in the mock hazard room, even when controlling for child gender and SES.
- Children with more types of externalizing behaviors would be at the highest risk of injury.

## PROPOSED METHOD

- Use of an existing data set and videos from the Safety Involving Brothers and Sisters (SIBS) project (Brown Kirschman & Dodds, 2014).
- The participants included 90 families with 180 children from ages 3-11 years.

### Materials and Measures:

- Family Information Form.
- Videos from the Simulated Hazard Room.
  - Designed to replicate a typical living room in a home.
  - Included items that looked as if they were an actual hazard, but were designed to be safe or not work entirely which included:
    - ✓ A cigarette lighter
    - ✓ A dull 3 inch knife
    - ✓ Fake medicine in a pill container
    - ✓ Bottles of cleansers
- Video Coding
  - Hyperactivity levels of the child.
  - Aggressive behaviors displayed by the child.
  - Child placing their hand on hazardous object.
- The Behavioral Assessment Scale for Children 2- Parent Report for Preschool Version and Child/Adolescent Version (BASC-2; Reynolds and Kamphaus).

## QUESTIONS TO BE ADDRESSED

1. Do externalizing behaviors displayed by the child relate to risk of unintentional injury in a simulated home hazard situation?
2. Does the level of parent-reported externalizing symptoms relate to injury risk, when controlling for other demographic variables that have been found to relate to child injury (i.e., gender, SES)?
3. Are parent reported measures of externalizing symptoms (e.g., BASC-2 scores) and observation of the child’s behavior while interacting in a simulated hazard room correlated?
4. What externalizing symptoms are more likely to be present together and does this affect the risk of unintentional injury as measured via a mock hazard setting?

## WHY IS THIS IMPORTANT?

- The identification of child attributions that may increase risk of home injury is an important first step in targeting prevention efforts.
- Unintentional injury has been seen as a public health problem; therefore these findings will be beneficial for programs that promote injury prevention by identifying the certain mechanisms that can cause children to be at a greater risk for unintentional injury (Schwebel et al., 2007).

## REFERENCES

American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Washington, DC.

Centers for Disease Control and Prevention (2010) MMWR weekly: Summary of unintentional injuries. Retrieved from <http://www.cdc.gov/>.

Krug, E. G., Sharma, G. K., & Lozano, R. (2000). The global burden of injuries. *American Journal of Public Health*, 90(4), 523–526.

Pastor, P., & Reuben, C. (2006). Identified Attention-Deficit/Hyperactivity Disorder and Medically Attended, Nonfatal Injuries: US School-Age Children, 1997–2002. *Ambulatory Pediatrics*, 38-44.

Schwebel, D., Hodgens, J., & Sterling, S. (2006). How mothers parent their children with behavior disorders: Implications for unintentional injury risk. *Journal of Safety Research*, 167-173.

Schwebel, D., Tavares, C., Lucas, E., Bowling, E., & Hodgens, J. (2007). Unintentional Injury Risk in Children with Externalizing Behavior Disorders at Summer Camp. *Journal of Clinical Psychology in Medical Settings*, 145-151.

World Health Organization, United Nations Children's Fund. (2008) World Report on Child Injury Prevention.